

The undescribed female of Harwood's Francolin *Francolinus barwoodi* and other observations on the species by J. S. Ash

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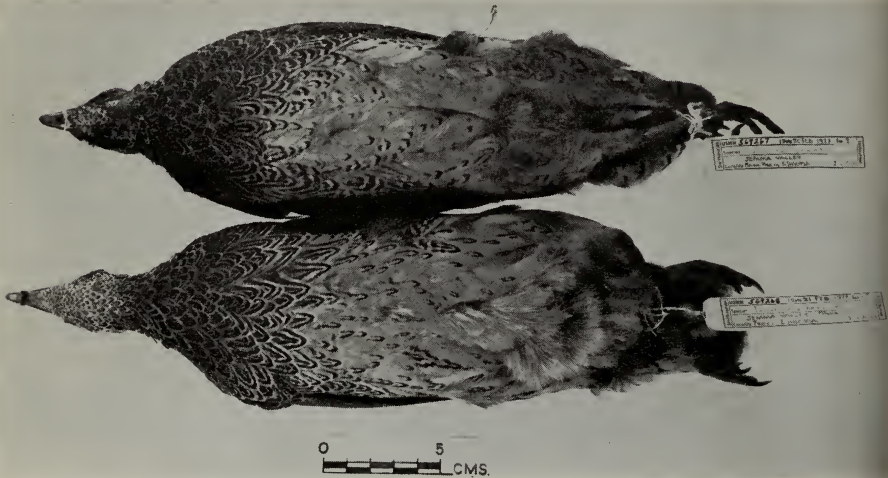


Figure 1. Under parts of *Francolinus barwoodi* illustrating slight sexual dimorphism in this species: female above, male below.

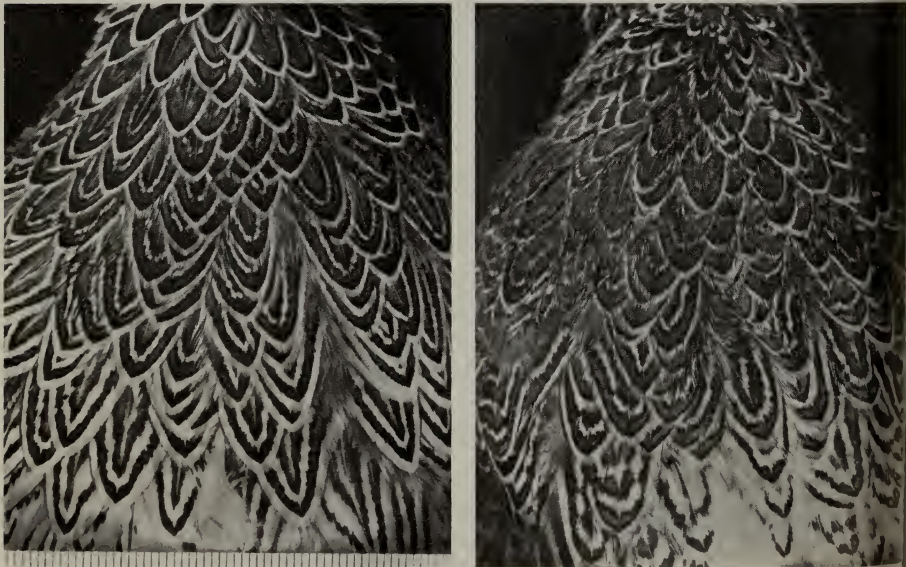


Figure 2. *Francolinus barwoodi* breast feathers: left—male, right—female. Scale in tenths of an inch.

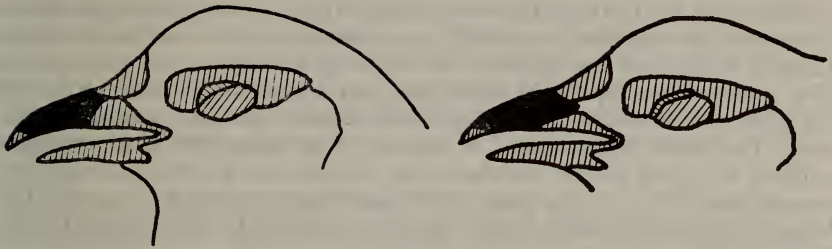


Figure 3. The distribution of colours on the mandibles of *Francolinus barwoodi*; the shaded areas are red, the solid areas are black. ♂ left, ♀ right.

Harwood's Francolin *Francolinus barwoodi* is one of the rare and virtually unknown birds of Africa (Hall & Moreau 1962). Until recently it has been known from only 3 specimens collected in the last 78 years in the Blue Nile gorge in north central Ethiopia. All were males. The purpose of this paper is to detail 4 more specimens (one male and three females), to describe the previously unknown female, and to discuss sightings of apparently similar birds over a much wider area of central Ethiopia. The 7 specimens collected so far (Table 1) are from 4 localities in the Blue Nile gorge or its tributaries. The type locality (Ogilvie-Grant 1900) Aheafeg (=Ahaia Fej=Haiafegg; Amharic for donkey killer) is 49 km northeast of where I collected in the Jemmu Valley; Cheesman & Sclater's (1935) localities near Bichana and at Kalo Ford are respectively 87 km northwest and 102 km to the west of the Jemmu site. Of the 4 new specimens, one was an adult male, 2 were first year females and one an adult female. Age was determined, as in other francolins, by the shape of the 2 outermost primaries. In juveniles the primaries are pointed, not rounded as in adults, and the 2 outermost are retained through the first pre-basic moult until the birds are about 14 months old.

DESCRIPTION OF THE MALE AND FEMALE *Francolinus barwoodi*

The Jemmu male, with which the Jemmu female needs to be compared, differs in some respects from the original description and plate of the type specimen (a male), in Ogilvie-Grant & Lovat (1900), perhaps due to the colour printing or to a change in colour values with time. The whole of the upperparts of the Jemmu male skin is a greyer tone of brown than the type in their plate, and the buff on the underparts is paler; both new and old feathers on the lower neck and upper breast have narrower white edging so that the general effect is darker; the red on the mandibles, round the eye and the legs, is darker, and the bare patch round the eye more extensive.

The female is very similar to the adult Jemmu male; sexual dimorphism is not at all emphatic. Over the whole of the upperparts, the female is slightly browner than the male, which is greyer and colder in tone. In all sex and age plumages the barring of the upperparts is indistinct, but in the female it is more pronounced, though the pale fringes to the feathers, probably as a result of wear, are, in fact, less distinct. Similarly on the underparts (Fig. 1), all the darker markings are browner in the female and greyer in the male, although their distribution is the same. The breast feathers are more pointed in the male than in the female and their pattern is more contrasting. In the centre of the underparts the male has scattered feathers with dark fairly large U-shaped markings, whereas the female has only small v-shaped

marks, which tend to form bars on the flanks (Fig. 1)—but these slight differences may be individual, especially as comparison shows that the first year female's underparts are intermediate between the adult male and female. The whole of the upperparts of the first-year female is very close to that of the adult female except the barring is less distinct, and thus approaches the male. The female lacks spurs. The colours of the mandibles of all 3 females at death were very similar, but that of the male showed a rather less extensive area of black (Fig. 3). The testes of the adult male measured 10×4 mm, the largest follicle in the adult female was < 1.5 mm and in the first year female it was 3 mm.

DISTRIBUTION

It is reasonable to suppose from my experience that the species occurs in the country in between the present known localities, and probably outside. Cheesman commented that the local people knew it well in the Bichana area, and I found that in the Jemmu Valley, which is partly cultivated for sorghum after the rains by the surrounding highland people, it was said to be common 'up and down the river'. Prior to 1977, I had seen possible *F. barwoodi* in this area on 6 April 1974 and 11/12 January 1975: but my misgivings were due to rather similar birds, seen at Gibe Gorge and elsewhere (see below) which did not entirely agree with descriptions of this species. However, Tyler & Tyler (1975) saw up to 6 francolins at the same Jemmu site on 5–7 January 1975, which they confidently identified as *barwoodi*. I decided that certain identification rested on the collection of specimens, for which a male was required, and that an attempt should also be made to collect the undescribed female if the male proved to be *barwoodi*. In a careful search of the Jemmu area in February 1977 at least 40 birds were present and the specimens were obtained.

Unidentified francolins were seen in the course of several visits to the Gibe Gorge ($8^{\circ} 15' N$, $37^{\circ} 35' E$, 1696 m), at c. 250 km SW from Jemmu, at different times of the year from May 1971 onwards. This is on the border of Shoa and Kaffa Provinces, about 185 km south of the nearest *F. barwoodi* locality. I suspected, from a bird seen closely on 7 November 1971, that these also were Harwood's Francolins. The habitat on the gentle northerly slopes of the valley there is open *Combretum*/*Terminalia* woodland in high dense *Hyparrhenia* grassland. The birds were extremely difficult to see well, although they were often heard in the dense grass, and attempts to obtain a specimen failed. *F. clappertoni*, which has a somewhat similar call to *F. barwoodi*, was ruled out by the absence of a pale supercilium, the absence of a white throat, which was grey and heavily streaked in the Gibe Gorge birds, and by the lack of distinctly patterned upperparts. However, the more heavily blotched appearance of the breast suggested *clappertoni* rather than *barwoodi*. The legs were red, and on one bird whose mandibles were seen well both upper and lower were black with a red base to the latter. The mantle appeared to be a uniform dark brownish colour and because no barring was seen it was thought that they may not have been *F. barwoodi*. Since then I have realized that the barred upperparts of *barwoodi* are not clearly discernible in the field.

From a vehicle on 16 April 1975, at c. 450 km to the WSW of Jemmu, I saw 4 francolins looking very like the Gibe birds, at 39 km northeast of

Dembidollo at 8° 47' N, 35° 00' E in Illubabor Province. This was an area of mixed shrubs and cultivated patches on the plateau at 1340 m. Bill colouration was not seen, otherwise they matched the description of the Gibe Gorge birds except that the feathers of the mantle had pale edges.

Whether these more southerly and westerly birds are *F. barwoodi* awaits determination by better field observations, or preferably specimens.

HABITAT

Mackworth-Præd & Grant's (1952) 'probably only found among the cliffs of the Blue Nile gorges southwest of Lake Tana' is misleading. Both the original and the recent records are from localities between southeast and south-southeast of Lake Tana. In addition, besides there being no other observations on habitat, in the Jemmu Valley I have never seen these francolins anywhere near the few low cliffs which exist there. There they live in dense and extensive *Typha* beds growing in the gravelly bed of a stream flowing into the Jemmu River. The *Typha* beds were c. 0.5 km wide and 2-3 km long; the stream was very shallow and divided into several branches, which as they receded in the dry season left numerous small pools behind. Also in the *Typha* there are several scattered trees, some pollarded, into which some *F. barwoodi* were seen flying when it was almost dark, evidently to roost, although most of them roost below the tops of the *Typha*, but not necessarily on the ground.

VOICE

In February there was a lot of calling from birds in the *Typha*, starting about 20 minutes before sunrise and continuing for 2-3 hours whilst the birds emerged to feed in the adjacent sorghum stubble. Calling was also heard for a short time just before sunset. The call was a loud rasping 'koree', not unlike that of *F. clappertoni*. Birds disturbed in the open always flew straight back into the *Typha*, but unlike some francolins in other habitats (see below) allowed fair observation whilst feeding, though without close approach. During the hotter part of the day birds were disturbed from deep shade in the *Typha* either under trees or below low brush.

BREEDING

There is no previous breeding data, so it is of interest to record a brood of 3 young about 5 weeks old (estimated on the basis of much previous experience with Common Partridges *Perdix perdix*) on 20-21 February 1977. From this it can be deduced that the first egg was laid in the second week of December.

RELATIONSHIPS

Hall (1963) included in the vermiculated group of francolins, *bicalcaratus*, *icterorhynchus*, *clappertoni*, *hildebrandti*, *natalensis*, *hartlaubi*, *barwoodi*, *adspersus* and *capensis*, and claimed that the first 6 of these formed a superspecies. *F. barwoodi* is most like *F. natalensis*, which is a species showing rather more sexual dimorphism. The upperparts of male *F. hildebrandti* are actually nearer to *barwoodi* than those of *barwoodi* are to *natalensis*, but there is marked sexual dimorphism in *hildebrandti* in which the females are very different below from the males. The degree of dimorphism in *F. barwoodi* is even less.

In the Jemmu Valley area, *F. barwoodi* comes in contact with no francolins except probably *F. erckelii*, which is common on the slopes of the gorge.

It is isolated from *F. p. psilolaemus*, which is common on the open grassland above the gorge, and by at least 50 km from populations of *F. clappertoni*, which is the nearest member of Hall's vermiculated group.

The Jemmu Valley is unique in my experience in Ethiopia in possessing elements of lowland western species together with typical highland species. The lowland species include *Streptopelia vinacea*, *Cisticola troglodytes ferruginea*, *Sporopipes frontalis*, *Petronia dentata* and *Euplectes hordeaceus*; the highland species include *Motacilla clarus*, *Streptopelia lugens* and *Poicephalus flavifrons*. Clearly the highland species overspill into the valleys from the surrounding high plateau, but some of the lowland species are a long way to the east of their known range. Presumably they extend all the way up the Blue Nile gorge and its tributaries, and only further investigation in this little known area will show whether their distribution is continuous or if this is an isolated population in the Jemmu Valley.

FOOD

One crop contained many small tubers of what was probably a species of *Dioscorea*. Two gizzards contained a similar tuber, many termites, grit, and the following seeds: 2 *Echinochloa* sp., possibly *E. crusgalli* var. *frumentacea*; 11 *Commelinaceae* and fragments; 2 *Amaranthus* sp. and 9 unidentified berry-like fruits, together with other fragments.

CONCLUSION

Francolinus barwoodi need no longer be considered the very rare bird that it was formerly thought to be, and there is no reason to believe that it is at any particular hazard. The known distribution of certainly identified specimens is confined to an area extending for 150 km from west to east and for 64 km from north to south. If other unconfirmed sight records are included the range is extended 320 km to the west and 185 km to the south.

TABLE I
Details of the seven known specimens of *Francolinus barwoodi*.

	^a	^b	^c	^d	^e	^f	^g
Locality	Aheafeq	nr. Bichana	Kalo Ford	Jemmu River	Jemmu River	Jemmu River	Jemmu River
Coordinates	10° 13' N, 39° 18' E	10° 26' N, 38° 16' E	9° 54' N, 37° 57' E	9° 58' N, 38° 55' E	9° 58' N, 38° 55' E	9° 58' N, 38° 55' E	9° 58' N, 38° 55' E
Altitude (m)	?	<2424	1667	1290	1290	1290	1290
Date	7.ii.1899	14.ii.1927	12.v.1930	20.ii.1977	20.ii.1977	21.ii.1977	21.ii.1977
Age/Sex	1 y ♂	1 y ♂	Ad ♂	1 y ♀	Ad ♀	1 y ♀	Ad ♂
Wing (mm)*	180	185	185	(161)	165	165	177
Tail (mm)*	83	—	86	—	72	73	75
Tarsus (mm)*	53	57	58	—	46	46.5	55
Culmen (mm)*	30	30	31	—	26	24	28
Weight (g)	—	—	—	413.5	445.5	438.0	545.0
Iris	Brown	—	—	Blackish-brown	—	Blackish-brown	Blackish-brown
Mandibles	red	lower bright vermilion	lower bright vermilion	see Fig. 1	see Fig. 1	see Fig. 1	see Fig. 1
Tarsus	red	bright vermilion	bright vermilion	red	red	red	red
Authority†	O-Grant 1900	C & S 1935	C & S 1935	Ash	Ash	Ash	Ash
Specimen‡	B.M.	B.M.	B.M.	Ethiopia	S.I.	S.I.	S.I.
Cat. No.	1900.1.3.396	1927.11.5.18	1934.12.16.67	—	569267	569266	569268

Notes:

* to obtain consistent museum measurements specimens a, b, and c were measured by P. R. Colston at the British Museum and e, f, and g by G. E. Watson at the Smithsonian Institution; my measurements in the flesh were 2-3 mm longer so that the wing of d, would be nearer 159. The measurements for tail, tarsus and culmen were made similarly. (b has no tail.)

† C & S = Cheesman and Selater (1935).

‡ indicates location of specimens. BM = British Museum of Natural History, Tring; SI = National Museum of Natural History, Smithsonian Institution, Washington, D.C.; Ethiopia = this bird had to be left in a freezer, now at the Central Laboratory in Addis Ababa, and its ultimate fate is uncertain.

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Postscript:

While the above was in proof, I received from M. A. Traylor and D. E. Willard a list of specimens taken by Fuertes and Osgood in Ethiopia, now in the collection of the Field Museum of Natural History, Chicago. Included are 4 *Francolinus barwoodi*, apparently all adults, from the Muger River valley at 1515-1757 m on 12 February 1927. The catalogue numbers for the 3 males and one female are 68985, 68986, 75363 and 75364 respectively. From the account of the expedition the collecting site must have been at 9°28'N, 38°36'E, which is 67 km southwest of the Jemmu site and 87 km southeast of the Kalo Ford. The distribution of certainly identified specimens now extends for 150 km from west to east and for 108 km from north to south.

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Description, moult and measurements of *Montifringilla theresae*

by Brian Wood, S. C. Madge, and C. S. Waller

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Probably due to its remarkably circumscribed range (Vaurie 1959, Vasic 1974), knowledge of Theresa's Snow Finch *Montifringilla theresae* is incomplete and based on only a few casual records (Meinertzhagen 1937, Paludan 1959, Dementiev 1963, Niethammer 1967). Therefore it seems worth recording observations of this species made during the Oxford University Ornithological Expedition to Afghanistan and Kashmir 1970, although these also are fragmentary.

During late July we encountered small flocks of Theresa's Snow Finches in undulating and arid country between the Nil Kotal and Band-i-Amir in central Afghanistan. They were particularly common in the valley at Band-i-Amir (67° 12' N, 34° 50' E) usually feeding in parties on the lower scree slopes below cliffs flanking the valley. Although Common Snow Finches *Montifringilla nivalis* also occurred here, the two species only occasionally formed mixed flocks, and *M. nivalis* was more usually encountered in rockier habitat.